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Further notes on the Harmochireae of Africa (Araneae, Salticidae, Pelleninae)

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Abstract

Four new spiders, *Bianor paulyi* **sp. n.** (♂♀; from Madagascar and the Comoros), *Microbianor deltshevi* **sp. n.** (♂♀; from Madagascar), *M. madagascarensis* **sp. n.** (♂♀; from Madagascar), and *Sibianor anansii* **sp. n.** (♂♀; from Botswana), are diagnosed, illustrated and described. A new combination is suggested: *Sibianor proszynskii* (Zhu et Song, 2001) **comb. n.** (ex *Harmochirus*). New faunistic records from Africa are given for *Bianor albobimaculatus*, *B. kovaczi*, *Harmochirus luculentus*, *Modunda staintoni*, *Neaetha oculata*, and *Sibianor kenyaensis*. A brief discussion of the current state of knowledge of the Harmochireae is also provided.

Keywords

New species, jumping spiders, Harmochireae, Araneae, Africa, Madagascar

Introduction

Originally (Simon 1903), the group Harmochireae consisted of a single genus *Harmochirus*. Referring to the atlases of diagnostic illustrations by Prószyński (1984, 1987), Żabka (1991: p. 12, table 1) commented that the Harmochireae was a group of randomly selected genera, of which four genera (*Bianor*, *Harmochirus*, *Neaetha* and *Modunda*) were similar; yet, he discussed neither its diagnostic characters, nor

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its taxonomic status. Later, Logunov (1996, 2001) provided a diagnosis of the Harmochireae and included seven genera in it (see Table 1). Based both on somatic morphology and on the structure of the copulatory organs, all the salticid genera currently included in this group were diagnosed, (re)described and discussed in detail by Logunov (2000, 2001).

The group Harmochireae is a member of the subfamily Pelleninae (sensu Maddison and Hedin 2003; Maddison et al. 2008). Its congeners can be readily distinguished from the rest of the Pelleninae genera by the absence of the compound terminal apophysis and cymbial dorso-lateral projections in males and of the epigynal flaps in females (for further details see Logunov 2001). The group Harmochireae most probably deserves tribal status within the Pelleninae, but this matter is outside the scope of the present work. It is worth mentioning though that *Bianor* and *Sibianor*, the two genera of Harmochireae sampled by Maddison et al. (2008) for their phylogenetic analysis, formed a separate clade within the Pelleninae (Op.cit.: fig. 9). The taxonomic status and composition of the group Harmochireae require further attention in the future, when more genera (particularly, *Harmochirus, Microbianor* and *Neaetha*) have been sampled for DNA sequence data.

Since the latest review of Harmochireae (Logunov 2001) only a few new species have been described (e.g., Jastrzębski 2007), with one of them, *Bianor biguttatus*, described from north Africa (Arabian Peninsula) (see Wesołowska and van Harten 2002). In the present work, I have considered new African material of various Harmochireae genera (10 species altogether) which became available to me in 2008. Four new species are described, and new faunistic records are reported for six other species.

Material and methods

This work is based on specimens borrowed from the following museums: BMNH = Department of Entomology, the British Natural History Museum, London, UK (Ms J. Beccaloni); and MRAC= Musée Royal de l'Afrique Centrale, Tervuren, Belgium (Dr. R. Jocqué). Abbreviations used in the text: *Eyes*: AME = anterior median eye, PLE = posterior lateral eye(s). *Leg segments*: Fm = femur, Mt = metatarsus, Pt = patella, Tr = tarsus, Tb = tibia. *Position of spines on legs*: ap = apical, d = dorsal, pr = prolateral, rt = retrolateral, v = ventral. For the leg spination the system adopted is that used by Ono (1988). The sequence of leg segments in measurement data is as follows: femur + patella + tibia + metatarsus + tarsus. The names of two collectors are abbreviated as follows: AP = A Pauly; ARS = A Russell-Smith. For previously described species only references to reliable sources of identification are provided. For a complete set of taxonomic references for each known species see Platnick (2009). All measurements are in mm.

Table 1. Valid species of the Harmochireae and their distribution.

Genera and species	Distribution
***Bianor* Peckham et Peckham, 1885**	
B. albobimaculatus (Lucas, 1846)	S Africa, Mediterranean to Central Asia
B. angulosus (Karsch, 1879)	S China, S and SE Asia
B. biguttatus Wesołowska et van Harten, 2002	Socotra
B. biocellosus Simon, 1902	Brazil (TL)
B. compactus (Urquhart, 1885)	New Zealand (TL)
B. concolor (Keyserling, 1882)	New South Wales (TL)
B. diversipes Simon, 1901	Malaysia (TL)
B. eximius Wesołowska et Haddad, 2009	South Africa (TL)
B. incitatus Thorell, 1890	S China, S and SE Asia, Caroline Islands
B. kovaczi Logunov, 2001	Ivory Coast, Ethiopia, Botswana
B. maculatus (Keyserling, 1883)	Australia, New Zealand
B. murphyi Logunov, 2001	Kenya
B. nexilis Jastrzębski, 2007	Bhutan (TL)
B. paulyi sp. n.	Madagascar, the Comoros
B. pseudomaculatus Logunov, 2001	N and E India, Vietnam
B. punjabicus Logunov, 2001	N India, Afghanistan
B. quadrimaculatus (Lawrence, 1927)	Namibia (TL)
B. senegalensis Logunov, 2001	Senegal
B. tortus Jastrzębski, 2007	Nepal, E India*
B. vitiensis Berry, Beatty et Prószyński, 1996	Fiji
B. wunderlichi Logunov, 2001	Canary Is., Azores
***Harmochirus* Simon, 1885**	
H. brachiatus (Thorell, 1877)	Bhutan to Taiwan and Indonesia
H. insulanus (Kishida, 1914)	S China, Korea, Japan
H. lloydi Narayan, 1915	India (TL)
H. luculentus Simon, 1886	S Africa to Yemen
H. pineus (Xiao et Wang, 2005)**	SE China (TL)
H. zabkai Logunov, 2001	Nepal, N India, Vietnam
***Microbianor* Logunov, 2000**	
M. deltshevi sp. n.	Madagascar (TL)
M. golovatchi Logunov, 2000	The Seychelles (TL)
M. madagascarensis sp. n.	Madagascar
M. nigritarsis Logunov, 2000	The Seychelles
M. saaristoi Logunov, 2000	The Seychelles, Réunion
***Modunda* Simon, 1901**	
M. aeneiceps Simon, 1901	Sri Lanka (TL)
M. staintoni (O. Pickard-Cambridge, 1872)	S Africa, the Middle East to NW India

Genera and species	Distribution
***Napoca* Simon, 1901**	
N. insignis (O. Pickard-Cambridge, 1872)	Israel (TL)
***Neaetha* Simon, 1884**	
N. absheronica Logunov et Guseinov, 2002	E Mediterranean, the Caucasus
N. catulina Berland et Millot, 1941	Mali (TL)
N. cerussata (Simon, 1868)	Mediterranean
N. irreperta Wesołowska et Russell-Smith, 2000	Tanzania (TL)
N. membrosa (Simon, 1868)	W Mediterranean and Central Europe
N. murphyorum Prószyński, 2000	Israel (TL)
N. oculata (O. Pickard-Cambridge, 1876)	E Mediterranean, Botswana
***Sibianor* Logunov, 2001**	
S. aemulus (Gertsch, 1934)	Canada, USA
S. anansii sp. n.	Botswana (TL)
S. annae Logunov, 2001	SE China (TL)
S. aurocinctus (Ohlert, 1865)	Europe to C Siberia
S. japonicus (Logunov, Ikeda et Ono, 1997)	The Russian Far East, Japan
S. kenyaensis Logunov, 2001	Kenya, Botswana
S. kochiensis (Bohdanowicz et Prószyński, 1987)	Japan
S. larae Logunov, 2001	Fennoscandia to the Russian Far East
S. latens (Logunov, 1991)	S Siberia to the Russian Far East
S. nigriculus (Logunov et Wesołowska, 1992)	The Russian Far East, N Korea, Japan
S. pullus (Bösenberg et Strand, 1906)	The Russian Far East, China, Korea, Japan
S. proszynskii (Zhu et Song, 2001), comb. n.***	NE China (TL)
S. tantulus (Simon, 1868)	Europe to E Siberia
S. turkestanicus Logunov, 2001	The Caucasus, Central Asia
S. victoriae Logunov, 2001	Kenya (TL)

Mainly based on the works by Logunov (1996, 2000, 2001), with subsequent contributions by Jastrzębski (2007), Ledoux (2007), Logunov and Guseinov (2002), Prószyński (2003), Song et al. (2001), Wesołowska and van Harten (2002, 2007), Wesołowska and Russell-Smith (2000), Wesołowska and Tomasiewicz (2008), Xiao and Wang (2005), Wesołowska and Haddad (2009), and present data. Abbreviation (TL) means that the species is known only from the type locality.

* The male mentioned by Jastrzębski (2007: p. 27) from E India (Assam) most probably belongs to *B. incitatus*.

** This species is likely to be a junior synonym of *H. insulanus* (cf. Logunov 2001: figs 194-203), which has also been reported from SE China. This problem requires special attention in the future.

*** A new combination has been suggested for *Sibianor proszynskii* (Zhu et Song, 2001) comb. n. (ex *Harmochirus*). On the basis of the original figures by Song et al. (2001: figs 284a-d), it is clear that the species possess all the male diagnostic characters of *Sibianor* (see Logunov 2001: pp. 223, 262), viz. the fringes on leg I and the tegular knob present, the PLE are not elevated, and the ♂ chelicerae are not modified. Thus, it is safe to conclude that this species is better considered a member of *Sibianor*. Furthermore, *S. proszynskii* is most likely a junior synonym of *S. nigriculus* (cf. Logunov 2001: figs 272-273) known to date from the Russian Far East, Japan and N Korea. This problem requires special attention in the future.

Table 2. A list of existing species names of the Harmochireae excluded from discussion.

Genera and species	Distribution, comments and references
***Bianor* Peckham et Peckham, 1885**	
B. fasciatus Mello-Leitão, 1922	Brazil; not a member of *Bianor* (Logunov 2001).
B. fimbriatus Mello-Leitão, 1917	Brazil; *nomen dubium* (Logunov 2001).
B. hongkong Song, Xie, Zhu et Wu, 1997	Hong Kong; not a member of *Bianor* (Logunov 2001)
B. monster Żabka, 1985	Vietnam. Likely to be a junior synonym of *B. angulosus* (see Logunov 2001).
B. simplex (Blackwall, 1865)	Cape Verde Is. Logunov (2001) treated this name as a *nomen oblitum*, but he did not mention the record by Berland (1936: p. 80, fig. 24-25), who illustrated the ♂ of this species from Santo Antão. Reasoning from the ♂ body colour pattern illustrated by Berland, one can conclude that there seems to be a separate species of *Bianor* occurring on the Cape Verde Is. (different from *B. albobimaculatus*). Yet its status and name require further study in the future.
***Harmochirus* Simon, 1885**	
H. bianoriformis (Strand, 1907)	C and E Africa, Madagascar. The taxonomic status and validity of this species are uncertain (Logunov 2001).
H. duboscqi (Berland et Millot, 1941)	Ivory Coast, Senegal. Likely to be a junior synonym of *H. luculentus* (Logunov, 2001).
H. rufescens Caporiacco, 1940	Somalia; *nomen dubium* (Wesołowska 1994; Logunov 2001).
***Modunda* Simon, 1901**	
M. ghigii Caporiacco, 1949	Kenya. This species, listed by Platnick (2009) under the genus *Bianor*, is of uncertain taxonomic status, as the ♀ holotype (see Caporiacco 1949: fig. 96) is not a member of the Harmochireae (no central blind-ending pocket!) and belongs elsewhere.
M. orientalis Dönitz et Strand, 1906	Japan. This species, listed by Platnick (2009) under the genus *Bianor*, was described from a single ♀ (Bösenberg and Strand 1906: table 8, fig. 123); as the original illustration is insufficient to assign the species to any of the currently known Harmochireae genera, it is safer to treat the species as being of uncertain taxonomic status.
***Neaetha* Simon, 1884**	
N. aegyptiaca Denis, 1947	Egypt. On the basis of the ♂ palp illustrated nicely by Denis (1947: plate V, figs 14, 15), it is easy to conclude that *N. aegyptiaca* is not a member of *Neaetha* but belongs in *Evarcha* Simon, 1902.

Genera and species	Distribution, comments and references
N. alborufula Caporiacco, 1949	Kenya. The original illustration by Caporiacco (1949: fig. 91) leaves no doubt that this taxon is not a member of *Neaetha*, as the figured ♂ palp is more similar to that of *Hispo* Simon, 1885 rather than to any *Bianor*-type taxa.
N. catula Simon, 1886	E and S Africa. This species is of uncertain taxonomic status: the ♀ illustrated by Caporiacco (1949: fig. 90) does not belong to the Harmochireae, as it does not have the central pocket.
N. fulvopilosa (Lucas, 1846)	Algeria, Tunisia. This species is of uncertain taxonomic status, known only from the original description.
N. ravoisiei (Lucas, 1846)	Algeria, E Africa. This species is of uncertain taxonomic status. The record by Strand (1907: p. 720) was based on an immature specimen.
***Stichius* Thorell, 1890**	
S. albomaculatus Thorell, 1890	Sumatra; *nomen dubium* (Logunov 2001).
***Velloa* Peckham et Peckham, 1903**	
V. modesta Peckham et Peckham, 1903	S Africa; *nomen dubium* (Wesołowska 1994, Logunov 2001).

Taxonomic part

Bianor Peckham et Peckham, 1885

Bianor is the largest genus of the Harmochireae, consisting of 21 valid species (Table 1), with the majority of them occurring in the Ethiopian or Oriental Regions. Six additional species have uncertain taxonomic status or are invalid (Table 2). In the light of findings of a new *Bianor* species from Madagascar and of new records of *B. kovaczi* from Botswana (see below), of which females are practically identical to those of *B. albobimaculatus* (cf. Figs 13-14 and figs 19-27, 36-46 in Logunov 2001), it is worth reconsidering the taxonomic status of *B. rusticulus* Peckham et Peckham, 1903 (known from the ♀ holotype), which was synonymized with *B. albobimaculatus* by Logunov (2001). Yet, such reconsideration will only be possible pending collection of a series of both sexes from the type locality of *B. rusticulus*, given on the original label as 'Clanwilliam, Cape Colony'.

With a few exceptions (e.g., *B. biocellosus* Simon, 1902), species of *Bianor* cannot be reliably diagnosed from the female copulatory organs alone because of a wide range of intraspecific variation (for details, see Logunov 2001: p. 222). Therefore, descriptions based on single females are hardly sufficient for proper diagnoses of *Bianor* species. Yet, such descriptions continue to appear (Jastrzębski 2007; Wesołowska and van Harten 2002).

***Bianor albobimaculatus* (Lucas, 1846)**

Identification. Logunov (2001: figs 4-8, 13-27, 36-46).

Material examined. IVORY COAST: 1♂ (BMNH), nr. Gagnoa, Zoukroboua, in rice swamp (hand collecting), 20.08.1992, ARS. – NIGERIA: 1♂4♀ (BMNH), Ibadan, International Institute of Tropical Agriculture, forest stream, swept grassland, 6.07.-17.08.1974, ARS; 2♂ (BMNH), same locality, swept tall grasses by lake, 21.09.1974, ARS.

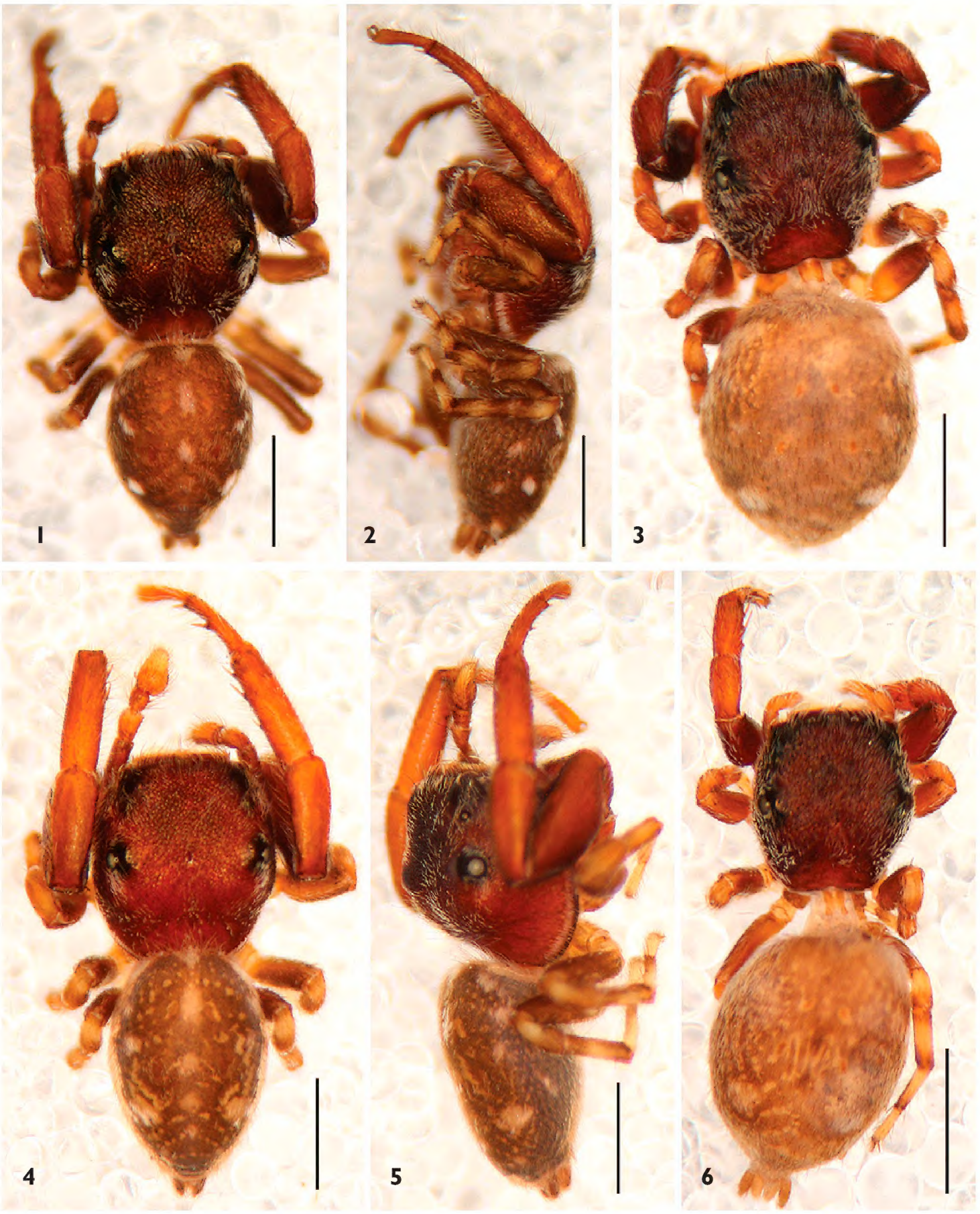
Comments. *B. albobimaculatus* is the most common and widespread species of the genus *Bianor*, reported from South Africa, northward throughout the entire continent to the Mediterranean, the Arabian Peninsula and the Near East, and then northeastward to Central Asia (Logunov 2001). However, in the light of new records of *B. kovaczi* from Botswana (see below), whose females are practically identical to those of *B. albobimaculatus*, some of the records of the latter species from South Africa should be revised.

***Bianor kovaczi* Logunov, 2001**
Figs 1-6

Identification. Wesołowska and Tomasiewicz (2008: figs 13-20).

Material examined. IVORY COAST: 2♂7♀ (BMNH), Bouaké, West African Rice Development Association, in irrigated rice plots, 08.1994, ARS; 1♂ (BMNH), same locality, trash management experiment, 12.09.1994, ARS. – BOTSWANA: 1♂ (BMNH), Maun, R. Thamalakane, grazed *Setaria* grassland, 24.07.1977, ARS; 1♀ (BMNH), same locality, swept *Miscanthidium* grassland, 28.06.1975, ARS; 1♂ (BMNH), same locality, in floodplain grassland, 1.02.1976, ARS; 1♀ (BMNH), nr. Maun, Maphaneng Pan, riverine woodland, 1.04.1976, ARS; 2♂ (BMNH), c. 10 km S of Maun, Botetle, swept in riverine woodland, 5.03.1976, ARS; 1♂ (BMNH), Kwai North gate, Margin of muddy lagoon, 15.07.1978, ARS; 1♂ (BMNH), Okavango, R. Boro (KB B63), in *Hyparrhenia* grassland, 2.07.1977, ARS; 1♂ (BMNH), Okavango, island in R. Moanachira, in *Hyparrhenia* grassland, 14.07.1977, ARS; 1♀ (BMNH), same locality, Moremi G.R., Mroma lagoon, in *Hyparrhenia* grassland, 13.08.1977, ARS; 1♀ (BMNH), same locality, Moremi West Gate, *Vossia* swamp, 15.07.1978, ARS; 1♀ (BMNH), same locality, R. Shashe, in floodplain grassland (hand collecting), 31.08.1975, ARS.

Comments. To date, this species has been recorded from Ethiopia only (Logunov 2001; Wesołowska and Tomasiewicz 2008). New records here from Ivory Coast and Botswana significantly extend our knowledge on the distribution of *B. kovaczi*, which seems to be a common Afrotropical species. Males of *B. kovaczi* can easily be distinguished from the remaining *Bianor* species by the proportions of the tegulum and especially by the relatively large promarginal teeth of the chelicerae (see Wesołowska and Tomasiewicz 2008: fig. 14). The latter character varies to some extent, which is



Figures 1-6. *Bianor kovaczi* Logunov 2001, specimens from Ivory Coast (**1-3**) and Botswana (**4-5**). **1**, **4** male general appearance, dorsal view **2**, **5** ditto, lateral view **3**, **6** female general appearance, dorsal view. (scale bars: 1 mm).

quite common in the Harmochireae (e.g., in *B. angulosus* or *Modunda staintoni*, see Logunov 2001), but remains more or less constant in all the males I have examined. Unfortunately, females of all African *Bianor* species cannot be reliably diagnosed by their copulatory organs; males are always required to identify a species.

***Bianor paulyi* sp. n.**
urn:lsid:zoobank.org:act:A2E4ECA2-5B2A-4B41-9887-85343391F084
Figs 7-14

Type material. Holotype. ♂ (MRAC, 225.263; Figs 7, 10-12) from Madagascar, Tamatave, Foulpointe, grassy vegetation near sea water, 10.1994, AP.

Paratypes. MADAGASCAR: 2♂5♀ (MRAC, 225.263; Figs 8-9, 13-14), together with the holotype; 1♂2♀ (MRAC, 201.744, 206.734), same locality, Tamatave prison, on sand and masonry walls, 09-11.1994, AP; 1♂ (MRAC, 174.492), Ambatondrazaka, Riviere, yellow trap, 21.04.1992, AP. – FEDERAL ISLAMIC REPUBLIC OF THE COMOROS: 1♂ (MRAC, 213.140), Mohéli, lac Boundouni, sweeping, 22.05.2003, R. Jocqué & D. den Spiegel.

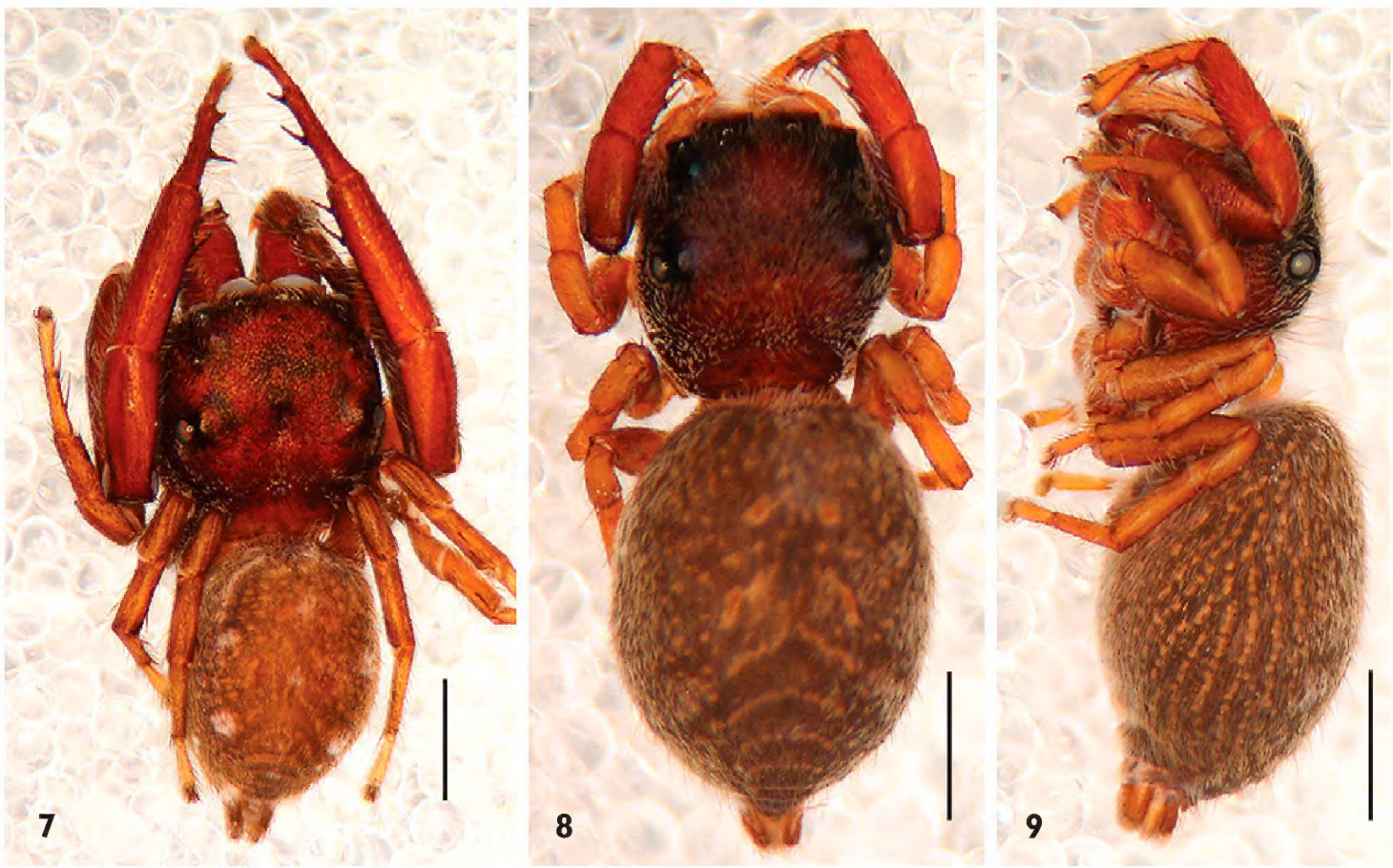
Other material examined. MADAGASCAR: 1♀ (MRAC, 174.507), Alaotra, reed marsh, yellow trap, 23.04.1992, AP; 1♀ (MRAC, 205.996), same locality, in swamp, yellow trap, 23.04.1992, AP; 2♀ (MRAC, 177.975), Madagascar, Lagune Onibe, boggy vegetation, 9.05.1993, AP; 1♀ (MRAC, 174.554), same locality, Cyperaceae marsh, yellow trap, 22.04.1992, AP.

Diagnosis. This species is most similar to *B. kovaczi* (see figs 13-20 in Wesołowska and Tomasiewicz 2008; Figs 1-6), reported from several African countries (see above), but can be reliably distinguished from it by the cheliceral dentition in males: i.e., the promarginal tooth being rather large and bicuspid (Fig. 12). The conformation of the epigyne and spermathecae in both species (cf. Figs 13-14 and figs 17-20 in Wesołowska and Tomasiewicz 2008), as well in many others (e.g. *B. albobimaculatus*, *B. maculatus*; see Logunov 2001), is almost indistinguishable.

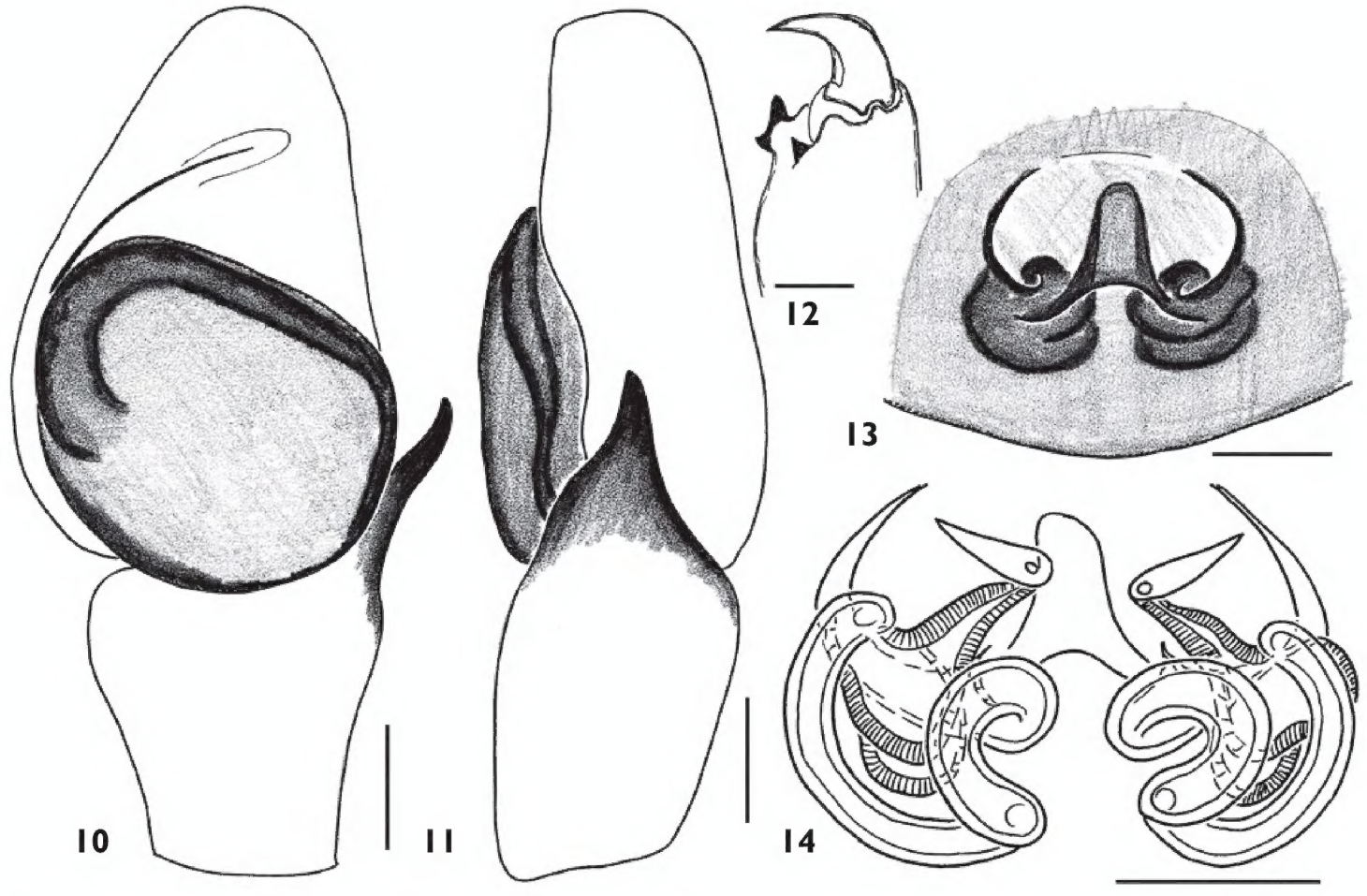
Etymology. The species is named after Dr A Pauly, the collector of the type series and of many other salticid species from Madagascar.

Distribution. NE region of Madagascar (several localities) and the Comoros.

Description. Male (the holotype). Measurements. Carapace 2.10 long, 1.88 wide, 1.15 high at PLE. Ocular area 1.33 long, 1.35 wide anteriorly and 1.75 wide posteriorly. Diameter of AME 0.50. Abdomen 2.15 long, 1.63 wide. Cheliceral length 1.13. Clypeal height 0.15. Length of leg segments: leg I- 1.85+1.20+1.40+0.98+0.65; leg II- 1.00+0.70+0.63+0.58+0.41; leg III- 1.15+0.53+0.60+0.70+0.39; leg IV- 1.15+0.60+0.73+0.80+0.43. Leg spination. Leg I: Fm d 0-0-1-2ap; Tb v 2-2-2; Mt v 2-2ap. Leg II: Fm d 0-0-1-2ap; Tb pr 0-1, v 1-1; Mt v 2-2ap. Leg III: Fm d 3ap; Tb pr and rt 1-1, v 1-1ap; Mt pr and rt 2ap, v 1ap. Leg IV: Fm d 0-0-1-2ap; Tb rt 0-1; Mt pr 1ap, rt 2ap. Colouration. Carapace russet, punctured-reticulate, sparsely covered with white scales (Fig. 7); clypeus and 'cheeks' russet, 'naked' (with sparse black hairs). Sternum yellowish brown, covered with white protruding hairs. Labium, maxillae and chelicerae russet. Abdomen (Fig. 7): dorsum brown, with pairs of white spots and without scutum; sides and venter yellowish grey. Book-lung covers and spinnerets yellow, tinged with grey. Legs I stronger and longer than others, russet, Tb, Mt and Tr covered with protruding light hairs. Legs II-IV yellowish brownish, with all tarsi contrastingly yellow. Palps yellowish-brownish; palpal structure as in Figs 10-11.



Figures 7-9. *Bianor paulyi* sp. n., male holotype (**7**) and female paratype (**8-9**). **7** male general appearance, dorsal view **8** female general appearance, dorsal view **9** ditto, lateral view. (scale bars: 1 mm).



Figures 10-14. *Bianor paulyi* sp. n., male holotype (**10-12**) and female paratype (**13-14**). **10** left male palp, ventral view **11** ditto, retro-lateral view **12** left male chelicera, ventral view **13** epigyne, ventral view **14** spermathecae, dorsal view. (scale bars: 0.1 mm).

Female (the paratype, sample 225.263). Measurements. Carapace 1.83 long, 1.60 wide, 0.90 high at PLE. Ocular area 1.05 long, 1.23 wide anteriorly and 1.53 wide posteriorly. Diameter of AME 0.43. Abdomen 3.03 long, 2.13 wide. Cheliceral length 0.63. Clypeal height 0.10. Length of leg segments: leg I- 1.08+0.68+0.71+0.58+0.41; leg II- 0.83+0.53+0.48+0.50+0.38; leg III- 1.05+0.48+0.50+0.58+0.35; leg IV- 1.10+0.53+0.65+0.73+0.40. Leg spination. Leg I: Fm d 0-0-1-1ap; Tb v 2-2-2; Mt v 2-2ap. Leg II: Tb pr 0-1, v 1-1; Mt v 2-2ap. Leg III: Fm d 1ap; Tb pr and rt 0-1, v 1ap; Mt pr and rt 2ap, v 1ap. Leg IV: Mt pr and rt 1ap. Colouration as in the male (Figs 8-9), but differs as follows: carapace much more densely covered with white adpressed scales; clypeus and chelicerae anteriorly covered with white hairs and scales; dorsum with poorly marked or no pattern of white spots; palps entirely yellow. Epigyne and spermathecae as in Figs 13-14.

Harmochirus Simon, 1885

The genus *Harmochirus* accommodates six valid species (Table 1) plus three species names of uncertain taxonomic status (Table 2). The genus is largely restricted to the Oriental Region, with a few species (e.g. *H. insulanus* and *H. zabkai*) also known from southern areas of the Palaearctic Region and one (*H. luculentus*) from the Ethiopian Region.

Harmochirus luculentus Simon, 1886

Identification. Logunov (2001: figs 206-246); Wesołowska and van Harten (2007: figs 68-75, pl. 11-12).

Material. IVORY COAST: 2♂1♀ (BMNH), Bouaké, West African Rice Development Association, upland rice field (pitfall traps), 6.09.1994, ARS. – NIGERIA: 1♂3♀ (BMNH), Ibadan, International Institute of Tropical Agriculture, forest stream, swept grassland, 6.07-17.08.1974, ARS. – BOTSWANA: 1♂1♀ (BMNH), nr. Maun, Maphaneng Pan, tall grass in riverine woodland, 5.12.1976, ARS; 1♂ (BMNH), same locality, grazed *Setaria* grassland, 22.08.1978, ARS; 1♀ (BMNH), nr. Maun, Island Safari Lodge, riverine woodland, 21.09.1975, ARS; 1♂ (BMNH), Maun, R. Thamalakane, grassland, 1.02.1977, ARS; 1♀ (BMNH), same locality and habitat, 3.03.1976, ARS; 4♀ (BMNH), same locality, grazed *Setaria* grassland, 24.07.1977, ARS; 1♀ (BMNH), same locality, on fig tree, riverine woodland, 03.1976, ARS; 1♂ (BMNH), nr. Maun, Maphaneng Pan, in short grassland (hand collecting), 24.02.1976, ARS; 1♀ (BMNH), same locality, grass tufts in riverine woodland, 26.03.1976, ARS; 1♀ (BMNH), nr. Maun, Okavango, Mankunyane lagoon, grassland (sweeping), 8.01.1977, ARS; 2♂ (BMNH), Okavango, Shaile Camp, in riverine woodland, 28.03.1976, ARS; 1♀ (BMNH), Okavango, Moremi G.R., Mboma lagoon, in *Hyparrhenia* grassland, 13.08.1977, ARS; 1♀ (BMNH), same lo-

cality, swept floodplain grassland, 14.01.1976, ARS; 1♂3♀ (BMNH), Okavango, R. Shashe, in floodplain grassland (hand collecting), 31.08.1975, ARS; 1♂1♀ (BMNH), Maun, Okavango, in garden (house 36), 5.06.1976, ARS; 1♀ (BMNH), Okavango, Moremi Reserve, swept tall grassland by lagoon, 19.05.1976, ARS. – SOUTH AFRICA: 2♀ (BMNH), Cape Peninsula, Buffels Bay, in sand dunes (hand collecting), 12.08.1978, ARS.

Comments. This is a common African species, distributed from South Africa (Logunov 2001, present data) to the Arabian Peninsula (Wesołowska and van Harten 2007).

Microbianor Logunov, 2000

This is a small, recently described genus with five valid species (Table 1). Originally, the genus was considered endemic to the Seychelles (Logunov 2000), but after the discovery of *M. saaristoi* in Réunion (Ledoux 2007) it became clear that the genus was more widespread. The findings of two new *Microbianor* species from Madagascar support this conclusion. It is interesting to note that after the original description of *Microbianor* (Logunov 2000) all new discoveries of its species have been made in the islands of the Indian Ocean rather than continental Africa. Furthermore, both new Malagasy species came from the NE shore of Madagascar. Thus, it is reasonable to assume that the distribution of *Microbianor* may reflect the Asian faunal affinities of Madagascar, which have been reported for a number of animal groups including scorpions and spiders (e.g., Legendre 1972; Lourenço 2003; Griswold 2003). If so, more new species of *Microbianor* might also be found in Sri Lanka and India.

Microbianor deltshevi sp. n.

urn:lsid:zoobank.org:act:E288919E-AAEB-4237-BFC4-E9900F426B6C

Figs 15-23

Type material. Holotype. ♂ (MRAC, 200.164; Figs 15-17) from Madagascar, Foulpointe, lagoon forest, yellow trap, 10.1993, AP.

Paratypes. MADAGASCAR: 12♂4♀1juv (MRAC, 200.164; Figs 18-23), together with the holotype; 2♂1♀ (MRAC, 177.809), same locality, 11.1993, AP; 1♀ (MRAC, 177.904), same locality, *Asplenium*-forest, 12.1993, AP; 1♂ (MRAC, 201.769), Madagascar, Tamatave, Foulpointe, forest on clay, 07.1994, AP; 1♀ (MRAC, 200.225), same locality and habitat, 12.1993, AP; 1♂ (MRAC, 205.810), same locality, yellow trap on upper beach margin, under *Scaevola taccata*, 11.1995, AP; 1♂ (MRAC, 200.064), Madagascar, Foulpointe, sea shore forest, sieving litter, 11.1993, AP.

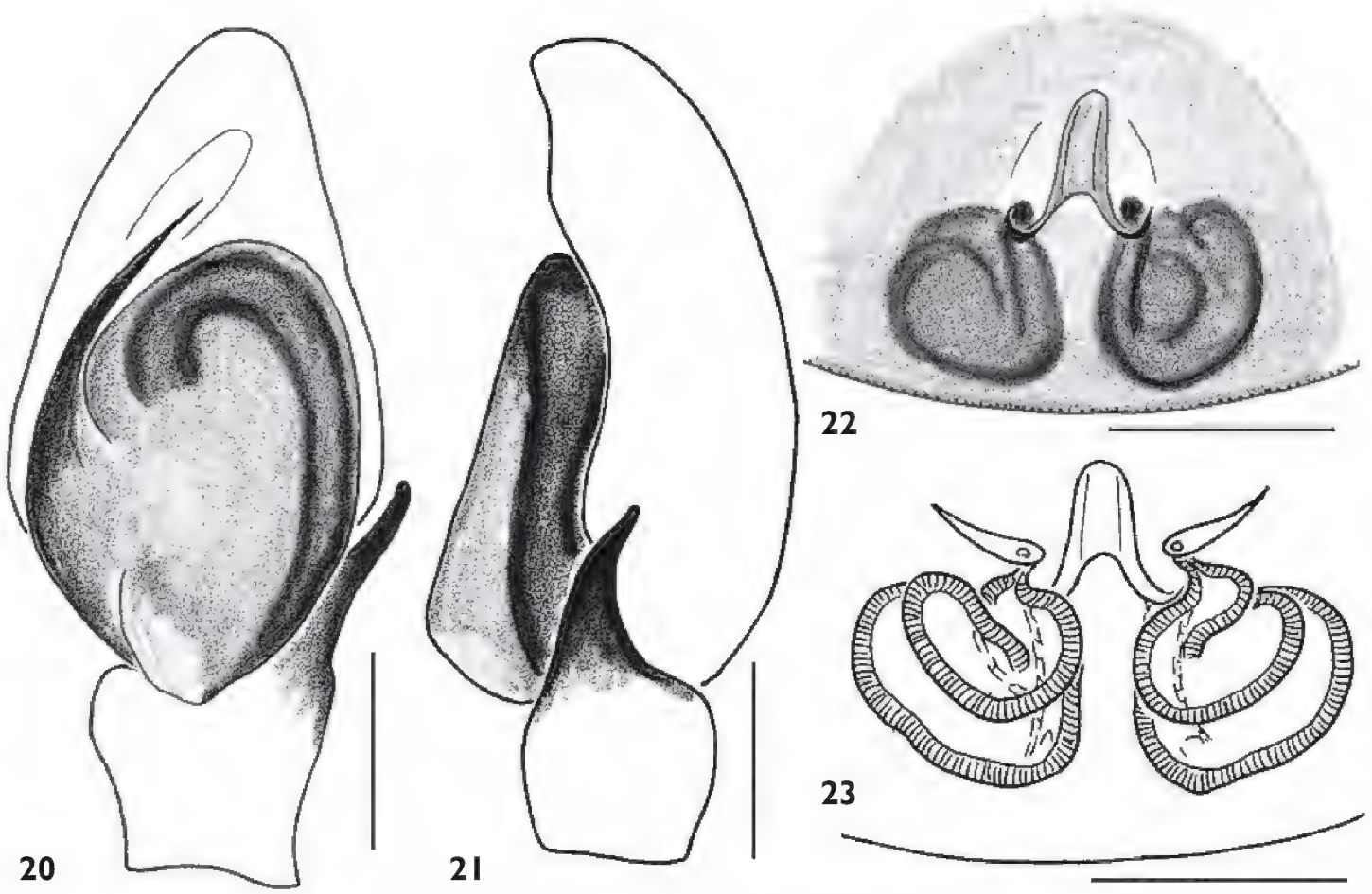
Diagnosis. Compared to all the described species of *Microbianor* (see Logunov 2000), *M. deltshevi* sp. n. differs in having a straight embolus (Fig. 20) and dark brown femora and tarsi I (Fig. 17) in males and the complete absence of fossae in females (Fig. 22).

Figures 15-19. *Microbianor deltshevi* sp. n., male holotype (**15-17**) and female paratype (**18-19**). **15** male general appearance, dorsal view **16** ditto, lateral view **17** male left leg I, lateral view **18** female general appearance, dorsal view **19** ditto, lateral view. (scale bars: 0.5 mm).

Etymology. The new species is dedicated to Prof Christo Deltshev (Bulgaria), for his life-long dedication to, and effective work on, spiders, and on the occasion of his 70th anniversary.

Distribution. NE part of Madagascar (Tamatave).

Description. Male (the holotype). Measurements. Carapace 1.08 long, 1.08 wide, 0.63 high at PLE. Ocular area 0.80 long, 0.90 wide anteriorly and 1.08 wide posteriorly. Diameter of AME 0.29. Abdomen 1.05 long, 0.95 wide. Cheliceral length 0.43. Clypeal height 0.07. Length of leg segments: leg I- 0.85+0.55+0.58+0.33+0.30; leg II- 0.50+0.33+0.29+0.28+0.26; leg III- 0.65+0.28+0.25+0.30+0.26; leg IV- 0.63+0.26+0.29+0.35+0.28. Leg spination. Leg I: Tb v 2-2; Mt v 2-2ap. Leg II: Fm d 1ap; Tb pr 0-1-0, v 1-1; Mt v 2-2ap. Leg III: Fm d 1ap; Tb pr and rt 0-1-0, v 1ap; Mt pr and rt 1ap, v 1-2ap. Leg IV: Fm d 1ap; remaining segments with no spines. Colouration. Carapace russet, shining with sparse white elongated scales (Figs 15-16). Eye field darker (brown), with black around eyes. Clypeus russet, with



Figures 20-23. *Microbianor deltshevi* sp. n., paratypes **20** left male palp, ventral view **21** ditto, retrolateral view **22** epigyne, ventral view **23** spermathecae, dorsal view. (scale bars: 0.1 mm).

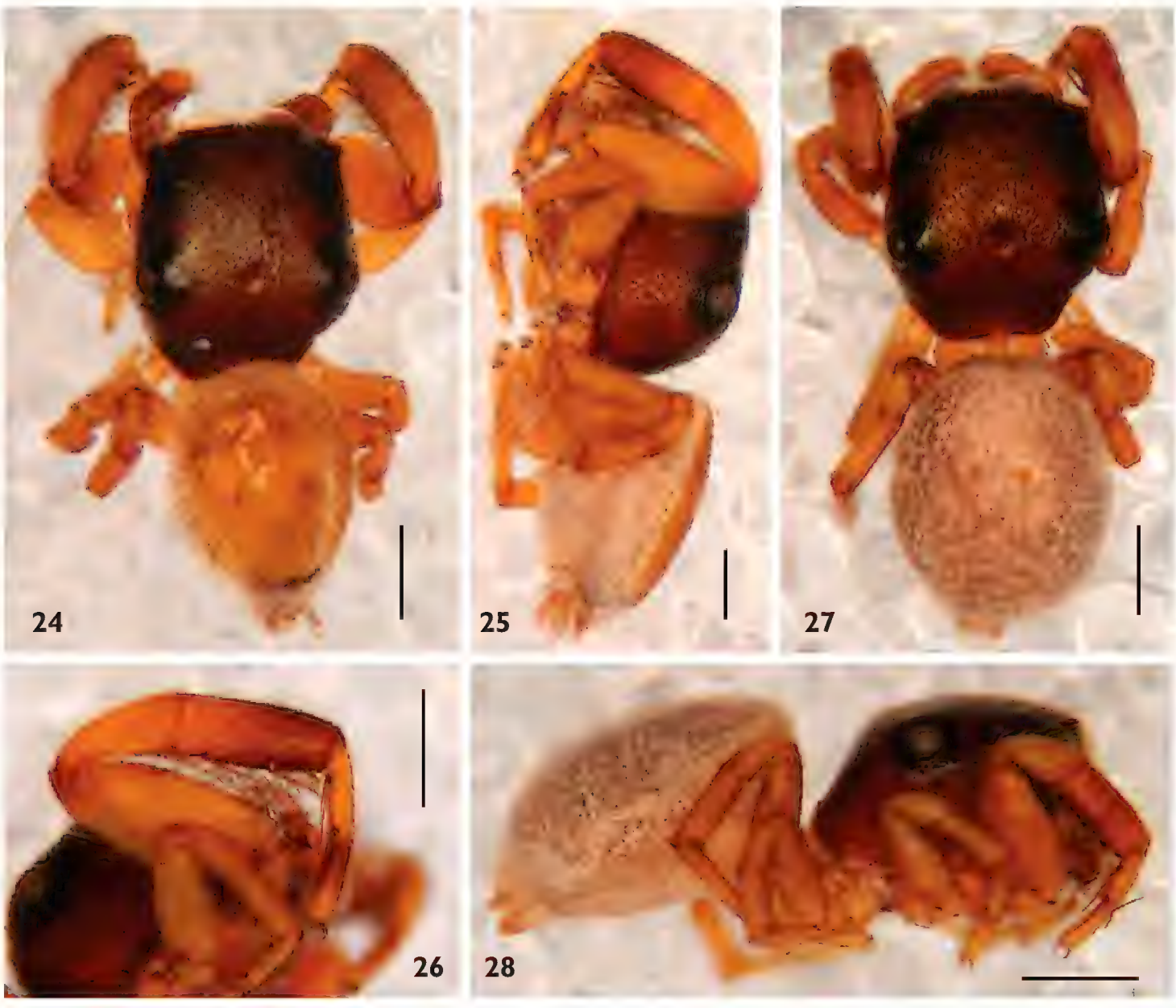
sparse black hairs. Sternum, labium, maxillae and chelicerae yellowish, tinged with red. Abdomen yellow-grey; dorsum completely covered with brownish scutum (Fig. 15), without marked colour pattern or with a poorly marked narrow transverse white stripe. Book-lung covers yellowish, spinnerets grey brownish (sometimes dark brown). Leg I (Fig. 17): Fm and Tr dark brown (almost black), Pt, Tb and Mt yellow; Fm dorsally and Pt & Tb ventrally with a row of black bristles. Legs II-IV yellow, with brown rings at segment joints (Fig. 16). Palps yellowish brownish; palpal structure as in Figs 20-21.

Female (the paratype, sample 200.164). Measurements. Carapace 1.25 long, 1.10 wide, 0.63 high at PLE. Ocular area 0.85 long, 0.90 wide anteriorly and 1.13 wide posteriorly. Diameter of AME 0.29. Abdomen 1.48 long, 1.13 wide. Cheliceral length 0.68. Clypeal height 0.06. Length of leg segments: leg I- 0.73+0.35+0.40+0.33+0.25; leg II- 0.55+0.35+0.28+0.28+0.25; leg III- 0.65+0.33+0.25+0.30+0.25; leg IV- 0.65+0.31+0.35+0.38+0.28. Leg spination. Leg I: Tb v 2-2; Mt v 2-2ap. Leg II: Tb pr 0-1-0, v 1-1ap; Mt v 2-2ap. Leg III: Tb v 1ap; Mt 3ap. Leg IV: no spines. Colouration as in the male (Figs 18-19), but paler and differs as follows: no scutum on dorsum; the colouration of legs I is similar to the other legs: all femora slightly darker (brown) than remaining segments, which are yellow with brown rings at segment joints; palps brownish yellowish, with brown tarsi. Epigyne and spermathecae as in Figs 22-23.

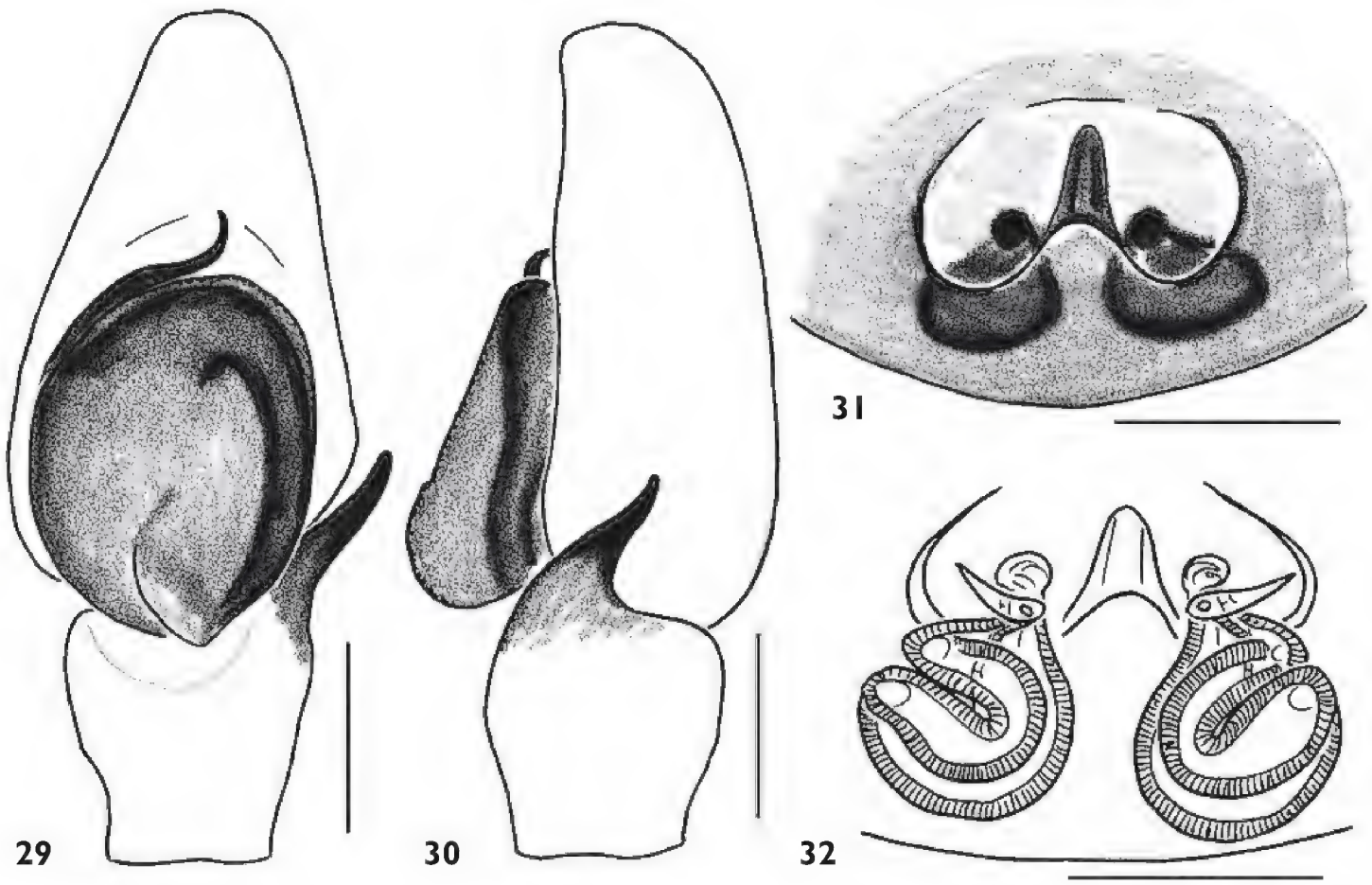
***Microbianor madagascarensis* sp. n.**
urn:lsid:zoobank.org:act:E2D1B206-EE41-4362-A68E-A90F0D4B9563
Figs 24-32

Type material. Holotype. ♂ (MRAC, 200.164; Figs 24-26, 29-30), Madagascar, Foulpointe, lagoon forest, yellow trap, 10.1993, AP.

Paratypes. MADAGASCAR: 2♂3♀ (MRAC, 200.164; Figs 27-28, 31-32), together with the holotype; 1♂1♀ (MRAC, 177.809, 206.057), same locality, 10-11.1993, AP; 1♂ (MRAC, 200.355), same locality, forest on sand, sieving litter, 2.12.1993, AP; 1♀ (MRAC, 206.921), same locality, forest of red soil, in litter, 11.1994, AP; 1♀ (MRAC, 201.407), Madagascar, Tamatave, Foulpointe, grassy vegetation near sea water, 10.1994, AP; 1♂1♀ (MRAC, 201.209), same locality, forest on clay, 08.1994, AP; 2♀ (MRAC, 200.390), Foulpointe, Filao-plantation on sea shore, sieving litter, 11.1993, AP; 1♀ (MRAC, 206.035), Madagascar, Ranomafana, 15.03.1994, AP.



Figures 24-28. *Microbianor madagascarensis* sp. n., male holotype (**24-26**) and female paratype (**27-28**). **24** male general appearance, dorsal view **25** ditto, lateral view **26** male right leg I, lateral view **27** female general appearance, dorsal view **28** ditto, lateral view. (scale bars: 0.5 mm).



Figures 29-32. *Microbianor madagascarensis* sp. n., male holotype (**29-30**) and female paratype (**31-32**). **29** left male palp, ventral view **30** ditto, retro-lateral view **31** epigyne, ventral view **32** spermathecae, dorsal view. (scale bars: 0.1 mm).

Diagnosis. Compared to all the described species of *Microbianor* (see Logunov 2000), *M. madagascarensis* sp. n. differs in having the best-developed and most clearly observable fossae in females (Fig. 31; in the rest of *Microbianor* species the fossae are undeveloped or poorly marked). By conformation of their palp, males of *M. madagascarensis* sp. n. are similar to those of *M. nigritarsis* (cf. Logunov 2000: figs 11-12), from which they can be distinguished by yellow tarsi tinged with brown in their basal halves (Fig. 26; black in *M. nigritarsis*). Females of both species are quite distinct in the conformation of their epigyne and spermathecae (cf. Figs 31-32 and figs 18-20 in Logunov 2000).

Etymology. The new species is named after the area of its occurrence, Madagascar.

Distribution. NE region of Madagascar (Tamatave and Ranomafana).

Description. Male (the holotype). Measurements. Carapace 1.33 long, 1.15 wide, 0.70 high at PLE. Ocular area 0.98 long, 1.03 wide anteriorly and 1.18 wide posteriorly. Diameter of AME 0.35. Abdomen 1.28 long, 0.95 wide. Cheliceral length 0.45. Clypeal height 0.05. Length of leg segments: leg I- 0.93+0.50+0.65+0.48+0.50; leg II- 0.60+0.36+0.33+0.33+0.26; leg III- 0.68+0.35+0.31+0.38+0.30; leg IV- 0.70+0.35+0.38+0.45+0.33. Leg spination. Leg I: Tb v 1-2-2ap; Mt v 2-2ap. Leg II: Fm d 1ap; Tb pr 0-1, v 1-1; Mt v 2-2ap. Leg III: Fm d 2ap; Tb pr and rt 0-1-0, v 1ap; Mt pr, rt and v 1ap. Leg IV: Fm d 1ap; Tb rt 0-1-0; Mt rt 1ap. Colouration. Carapace russet, shining, with black around eyes; eye field of the same colour as the

rest of carapace (Figs 24-25). Clypeus russet, with sparse long white hairs forming a triangle and overhanging the chelicerae. Sternum yellowish-brownish. Maxillae, labium and chelicerae russet. Abdomen greyish-yellowish; dorsum, entirely covered with brownish shining scutum and with a pair of transverse white spots (sometimes poorly marked; Fig. 24). Book-lung covers and spinnerets yellow, slightly tinged with brown. All legs yellow, with no brown rings, but tibiae I and the basal half of tarsi I brownish (Fig. 26). Palps yellow to brownish, but cymbium always yellow; palpal structure as in Figs 29-30.

Female. (the paratype, sample 200.164). Measurements. Carapace 1.38 long, 1.15 wide, 0.65 high at PLE. Ocular area 0.93 long, 1.00 wide anteriorly and 1.16 wide posteriorly. Diameter of AME 0.34. Abdomen 1.55 long, 1.10 wide. Cheliceral length 0.43. Clypeal height 0.05. Length of leg segments: leg I- 0.78+0.40+0.48+0.35+0.30; leg II- 0.58+0.36+0.31+0.33+0.29; leg III- 0.65+0.29+0.33+0.38+0.28; leg IV- 0.75+0.30+0.40+0.48+0.33. Leg spination. Leg I: Tb v 1-2-2; Mt v 2-2ap. Leg II: Tb pr 0-1-0, v 1-1ap; Mt v 2-2ap. Leg III: Tb pr and rt 0-1-0, v 1ap; Mt pr, rt and v 1ap. Leg IV: no spines. Colouration as in the male (Figs 27-28), but differs as follows: no scutum on dorsum; book-lung covers and spinnerets yellow; palps yellow; tibiae I brownish. Epigyne and spermathecae as in Figs 31-32.

Modunda Simon, 1901

This is a very small genus consisting of two valid species, of which one (*M. aeneiceps*) remains known only from the type locality (Sri Lanka: Colombo). The second species mentioned below is a widespread Afrotropical species.

Modunda staintoni (O. Pickard-Cambridge, 1872)

Identification. Logunov (2001: figs 347-366); Wesołowska and van Harten (2007: figs 118-123, pl. 20-21); Wesołowska and Tomasiewicz (2008: figs 102-106).

Material examined. BOTSWANA: 2♂2♀ (BMNH), Maun, R. Thamalakane, grassland (on ground layer), 3.03.1976, ARS; 1♂ (BMNH), same locality, swept *Setaria* grassland, 2.01.1977, ARS; 1♀ (BMNH), same locality and habitat, 24.07.1977, ARS; 3♀ (BMNH), same locality, in grass tufts, 2-17.03.1976, ARS; 2♂ (BMNH), same locality, in *Vossia* swamp, 26.02.1976, F. Wanless & ARS; 2♀ (BMNH), Okavango, Moremi South Gate, grassland, 14.03.1977, ARS; 1♀ (BMNH), Okavango, Moremi Game Reserve, Mboma lagoon, in *Hyparrhenia* grassland, 30.06.1977, ARS.

Comments. This is a rather common species distributed from Botswana (present data), north-eastward throughout Ethiopia, the Arabian Peninsula (Wesołowska and van Harten 2007; Wesołowska and Tomasiewicz 2008) and the Near East (Prószyński 2003), to Afghanistan and Punjab in NW India (Logunov 2001).

Neaetha Simon, 1884

This is a relatively small genus consisting of 7 valid species that are known exclusively from the Mediterranean and Africa (Table 1). Five additional species names are of uncertain taxonomic status (Table 2). A new record of a *Neaetha* species given below has extended the distribution of the genus as far south as Botswana.

Neaetha oculata (O. Pickard-Cambridge, 1876)

Identification. Logunov (1996: figs 18-23).

Material examined. BOTSWANA: 14♂5♀ (BMNH), Okavango, Shorobe lagoon, grassland (pitfall traps), 24.06.1975, ARS.

Comments. This is the first record of *N. oculata* from southern Africa. To date the species was known from the Eastern Mediterranean, Egypt and the Arabian Peninsula (Wesołowska and van Harten 1994; Logunov 1996). The species *N. irreperta* Wesołowska et Russell-Smith, 2000, described recently from Tanzania, displays a strong similarity to *N. oculata*. On the basis of published accounts of both species, it is impossible to decide whether they are conspecific or not. The matter requires further attention in the future.

Sibianor Logunov, 2001

This genus, with its 15 described species, is almost entirely confined to the Palaearctic and Afrotropical Regions (Table 1). The only exception is *S. aemulus* (Gertsch, 1934), known from the Nearctic Region (Canada and USA; Ubick et al. 2005). A new species described below is one of the three species known to date from tropical Africa. It is safe to assume that the real diversity of the Afrotropical species remains largely undescribed.

Sibianor anansii, sp. n.

urn:lsid:zoobank.org:act:7F5F2E38-53FF-4CAC-822E-3C04ACCA28D2
Figs 33-41

Type material. Holotype. ♂ (BMNH; Figs 33-35, 38-39) from Botswana, Okavango, Moremi G.R., Mboma lagoon, in *Hyparrhenia* grassland, 13.08.1977, ARS.

Paratypes. BOTSWANA: 1♀ (BMNH; Figs 36-37, 40-41), together with the holotype.

Diagnosis. Of the African species of *Sibianor*, the new species is most similar to *S. victoriae* (cf. Logunov 2001: figs 292, 293), described from a single male from Kenya. *S. anansii* sp. n. differs in having a wider tibial apophysis, which is also of a different shape (Fig. 39). The female of *S. anansii* sp. n. differs from all the known *Sibianor*

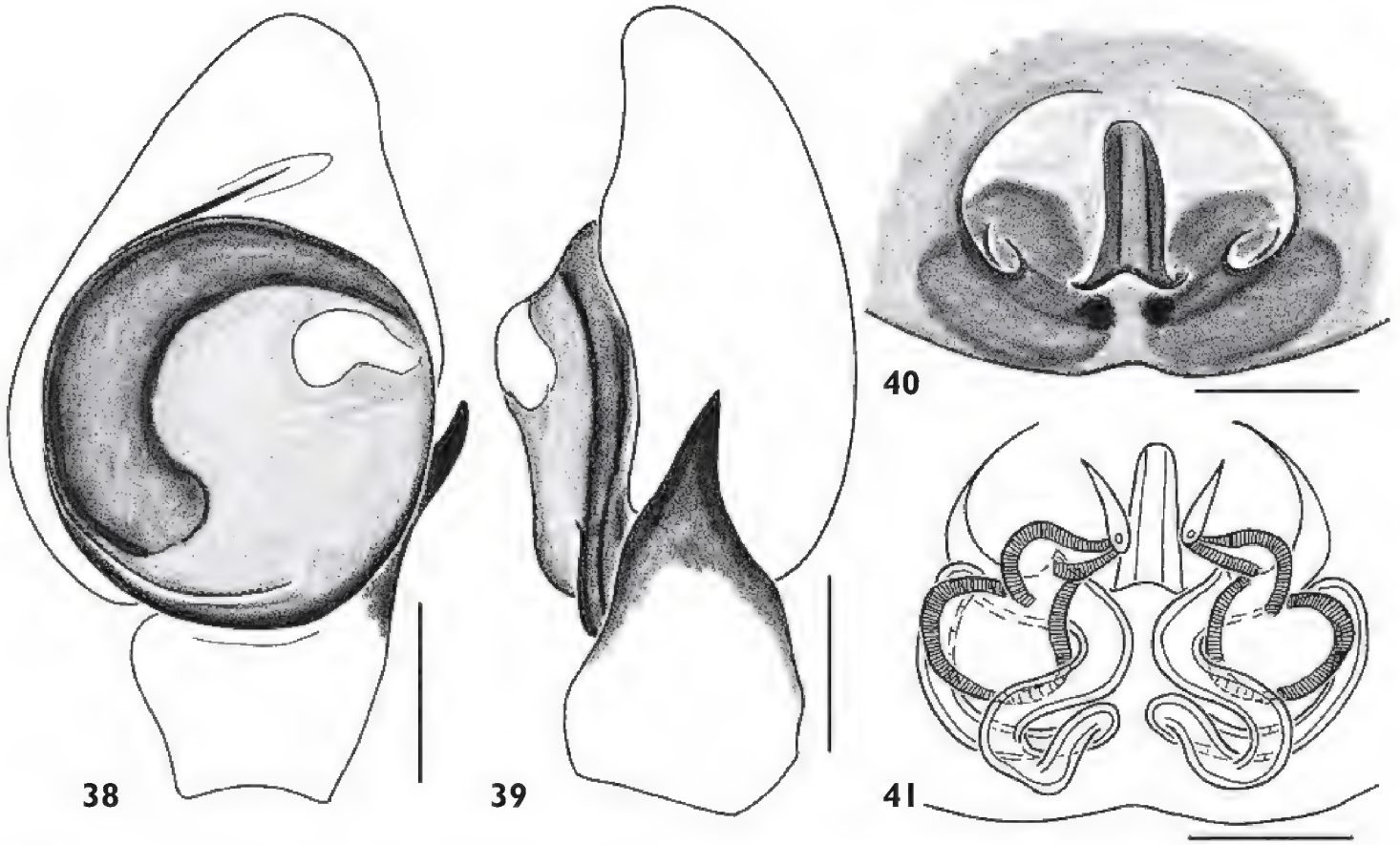
Figures 33-37. *Sibianor anansii* sp. n., male holotype (**33-35**) and female paratype (**36-37**). **33** male general appearance, dorsal view **34** ditto, lateral view **35** male left leg I, lateral view **36** female general appearance, lateral view **37** female abdomen, dorsal view. (scale bars: 1 mm).

species in having longer insemination ducts (Fig. 41). Besides, the entire body of both sexes of *S. anansii* sp. n. is covered with white scales (Figs 33-17), which is not the case of *S. victoriae* (see Logunov 2001: p. 276).

Etymology. The new species is dedicated to the spider Anansi, a popular figure in the folklore of West Africa (the Ashanti of Ghana), appearing as a cunning trickster and the King of all Stories.

Distribution. The type locality only.

Description. Male (the holotype). Measurements. Carapace 1.25 long, 1.00 wide, 0.58 high at PLE. Ocular area 0.78 long, 0.85 wide anteriorly and 1.04 wide posteriorly. Diameter of AME 0.29. Abdomen 1.25 long, 1.08 wide. Cheliceral length 0.38. Clypeal height 0.10. Length of leg segments: leg I- 0.70+0.40+0.55+0.35+0.28; leg II- 0.50+0.31+0.28+0.28+0.25; leg III- 0.59+0.33+0.28+0.30+0.30; leg IV-



Figures 38-41. *Sibianor anansii* sp. n., male holotype (**38-39**) and female paratype (**40-41**). **38** left male palp, ventral view **39** ditto, retro-lateral view **40** epigyne, ventral view **41** spermathecae, dorsal view. (scale bars: 0.1 mm).

0.73+0.33+0.33+0.38+0.33. Leg spination. Leg I: Tb v 1-2; Mt v 2-2ap. Leg II: Fm d 1ap; Tb v 1-1; Mt v 2-2ap. Leg III: Fm d 1ap; Tb pr 0-1-0, v 1ap; Mt pr and rt 2ap, v 1ap. Leg IV: Fm d 1ap; Mt pr and rt 1ap. Colouration. Carapace light brown, evenly covered with adpressed white scales (Fig. 33); black around eyes. Clypeus light brown, covered with white scales and hairs, overhanging the chelicerae. Sternum, labium and chelicerae light brown. Abdomen grey-brownish, dorsum completely covered with scutum; entire abdomen evenly covered with white adpressed scales (Figs 33-34). Book-lung covers and spinnerets light brown. Legs I stronger than others, brown with yellow Mt and Tr, and with fringes of black bristles on Pt, Tb and ventral sides of Fm (Fig. 35). Legs II-IV yellow, with brownish Fm and brown rings at segment joints (Fig. 34). Palps yellow; palpal structure as in Figs 38-39.

Female (the paratype). Measurements. Carapace 1.27 long, 1.05 wide, 0.60 high at PLE. Ocular area 0.83 long, 0.85 wide anteriorly and 1.10 wide posteriorly. Diameter of AME 0.26. Abdomen 1.75 long, 1.25 wide. Cheliceral length 0.50. Clypeal height 0.08. Length of leg segments: leg I- 0.63+0.35+0.38+0.33+0.25; leg II- 0.48+0.33+0.25+0.28+0.24; leg III- 0.63+0.33+0.30+0.33+0.29; leg IV- 0.68+0.30+0.38+0.43+0.30. Leg spination. Leg I: Tb v 1-2; Mt v 2-2ap. Leg II: Tb v 1-1; Mt v 2-2ap. Leg III: Tb v 1ap; Mt pr 1ap. Leg IV: no spines. Colouration as in the male (Figs 36-37), but differs as follows: all legs yellow, with brown Fm and brownish rings at segment joints; no scutum on dorsum; palps: Fm brown, remaining segments yellow. Epigyne and spermathecae as in Figs 40-41.

***Sibianor kenyaensis* Logunov, 2001**
Figs 42-44

Identification. Logunov (2001: figs 292, 293).

Material examined. BOTSWANA: 1♂ (BMNH), Okavango, Maxwee, Mopane woodland (pitfall traps), 21.11.1975, ARS.

Comments. This is the first record of *S. kenyaensis* following its original description and a new record outside the type locality (Kenya: Kilifi).

Figures 42-44. *Sibianor kenyaensis* Logunov, 2001, male from Botswana. **42** general appearance, dorsal view **43** ditto, lateral view **44** clypeus and chelicerae, front view. (scale bars: 1 mm).

Discussion

At present, 57 recognized species from seven genera are included in the group Harmochireae (Table 1). Of these, 20 species are known only from their respective type localities, and a few remain unrevised and/or of uncertain taxonomic status. An additional 17 species names are excluded from the list of valid names for various reasons (see Table 2).

Of the Neotropical genera of the Pelleninae, *Havaika* Prószyński, 1992, an endemic genus to the Hawaiian Archipelago, is rather similar to members of Harmochireae in the conformation of its copulatory organs, especially in the thin, whip-shaped embolus (see Prószyński 2008: figs 21-36). Yet, according to the available molecular phylogeny of Salticidae (Maddison and Hedin 2003: fig. 5; Maddison et al. 2008: fig. 9), within the Pelleninae, *Havaika* is closer to *Pellenes* Simon, 1876 and *Habronattus* F. O. Pickard-Cambridge, 1901 than to *Bianor* and *Sibianor*, i.e. it does not belong with the group Harmochireae as it is currently diagnosed (see Introduction, and Logunov 2001).

Harmochireae is predominantly an Old-World group, as over 90% of its described species are restricted to the Palaearctic, Ethiopian or Oriental Regions (Table 3). In the Neotropics, the only described species is *Bianor biocellosus*, known from the type locality in Brazil ('le Para'; Logunov 2001: p. 234). A single species, *Sibianor aemulus*, has been described and recorded from the Nearctic Region (Logunov 2001; Ubick et al. 2005). Yet, there are three *Bianor* species described from the Australian Region, including New Zealand, but two of them (*B. compactus* and *B. concolor*) remain unrevised and known from the original descriptions and only from their type localities. The taxonomic status of both of them is uncertain, as these names might be junior synonyms of *B. maculatus*. With the above four exceptions, the remaining Harmochireae species have only been recorded from the Old World.

Table 3. Number of described species of the Harmochireae in main zoogeographical regions*.

Genera	Zoogeographical regions					
	Palaearctic	**Ethiopian****	**Oriental**	**Australian****	**Nearctic**	**Neotropic**
Bianor	4	8	6	3		1
Harmochirus	2	1	5			
Microbianor		5				
Modunda	1	1	1			
Napoca	1					
Neaetha	5	2				
Sibianor	10	3	1		1	
Total	**23**	**20**	**13**	**3**	**1**	**1**

* Some species are distributed in several zoogeographical regions, therefore their presence has been counted separately for each region.

** For simplicity, Madagascar was considered together with the Ethiopian (=Afrotropical) Region, and New Zealand with the Australian Region. Traditionally, both areas are treated as separate zoogeographic regions (e.g., Kryzhanovski 2002: map 1).

Within the Old World, the Palaearctic and Ethiopian regions contain a similar number of recorded species and genera: 23 vs. 20 species and five vs. six genera, respectively. Four genera (*Bianor*, *Harmochirus*, *Modunda* and *Sibianor*) have their representatives in all three zoogeographic regions of the Old World. Of these genera, *Modunda* is represented by a single widespread species *M. staintoni*, distributed throughout Africa from Botswana, north-eastward to Afghanistan and Punjab. Five of the six described species of *Harmochirus* are confined to the Oriental Region. The only widespread Afrotropical species is *H. luculentus*. The genus *Sibianor* is most diverse in the Palaearctic Region, with 10 of its 15 species recorded there. All *Sibianor* species have recently either been revised or been described (Logunov 2001; Zhu et Song 2001, etc.), therefore to date the species composition of *Sibianor* seems to be the most reliable in terms of taxonomy. The genus displays a clear modern centre of diversity in the Manchurian area, to which at least six species are confined. *Bianor* is the most common genus of Harmochireae in the Ethiopian and Oriental regions. In the Palaearctics, the only known, widespread species is *B. albobimaculatus*, confined to southern regions below the 40-45° latitude.

Two genera display a rather limited distribution. *Napoca* is a monotypic genus known to date only from Israel. All the species of *Microbianor* have been described from islands in the Indian Ocean, but new findings from Sri Lanka and India are possible as has been discussed above (p. 276).

Acknowledgements

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Addendum

While the present work was in press, I received a copy of the large faunal-taxonomic paper by Wesołowska and Haddad (2009) on the Salticidae of the Ndumo Game Reserve in South Africa. Their list contains 72 species in 38 genera and includes three species of the group Harmochireae: *Bianor eximius* Wesołowska et Haddad, 2009 (new; after a single ♀), *Harmochirus luculentus* and *Modunda staintoni*.

Reasoning from the small size (2.9 mm long) and the slightly swollen femora I, *Bianor eximius* is more likely to belong in *Sibianor* rather than *Bianor*. Re-examination of the ♀ holotype will be required to confirm this. The records of *Harmochirus luculentus* are well in agreement with our records of this species from Botswana and South Africa.

Wesołowska and Haddad (2009: p. 58) suspected that their record of *Modunda staintoni* might have resulted from a human introduction or that it may belong to a new species. However, our records of this species from Botswana (based on both sexes) support the idea that this is a widespread Afrotropical – South Palaearctic species rather than an introduced one.